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10/796,582	03/09/2004	Jefferson G. Shingleton	PWRL 1029-4	1118
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/796,582

Applicant(s)

SHINGLETON ET AL.

Examiner

GOLAM MOWLA

Art Unit

1795

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 33-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 33-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Amendment

1. Applicant's response of 06/27/2008 and amendment of 01/10/2008 does not place the Application in condition for allowance.
2. Claims 1-18 and 33-38 are pending. Applicant has cancelled claims 19-32.

Status of the Rejections

3. The rejection of claims 1-18 and 33-38 under 35 U.S.C. § 102/103 from the office action mailed on are withdrawn. New ground(s) of rejection under 35 U.S.C. §102 and 35 U.S.C. §103 is/are presented.

Specification

4. The substitute specification filed 01/10/2008 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: the amended paragraphs [0010] and [0011] are completely different than originally filed paragraphs [0010] and [0011], which are as follows:

[0010] FIG. 5 is an enlarged end view of the shade system of FIG. 1 illustrating the 1:12 inclination of the modular panels;

[0011] FIG. 6 is a simplified side view of a light concentrator type of PV panel;

Examiner believes Applicant intention was to replace the paragraphs [0028] and [0029] with the amended paragraphs submitted on 01/10/2008. In that case, Applicant

is suggested to file an amendment to the specification stating the paragraphs to be amended.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-18 and 33-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claims 1 and 33, the Applicant has not disclosed "stationary" and "fixed" in their specification in regard to the shade structure. In regard to claims 13, the Applicant fails to disclose "wire mesh" and "sheet of material" in their specification in regard to the protective panels. With respect to claims 37, the Applicant fails to disclose a "first, second, third, and fourth" and "stationary" in their specification in regard to the rows and shade structure. In regard to claims 38, the Applicant fails to disclose a

"structure lengths and row lengths being about equal" and "stationary" in their specification in regard to the rows and shade structure

8. Claims 1-18 and 33-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it recites the limitation "the shade structure" in line 12. There is insufficient antecedent basis for this limitation in the claim. It is suggested said phrase be changed to "the stationary shade structure." Claims 2-18 are indefinite as these claims depend on claim 1.

Claim 3 is indefinite because it recites the limitation "the Southside and Northside supports" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 is indefinite because it recites the limitation "East-West extending shade support bars" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 is indefinite because it recites the limitation "the shade structure" in line 13. There is insufficient antecedent basis for this limitation in the claim. It is suggested said phrase be changed to "the stationary shade structure." Claims 34-38 are indefinite as these claims depend on claim 33.

Claim 36 is indefinite because it recites "the traffic regions" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. Claims 37-38 are indefinite as these claims depend on claim 36.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

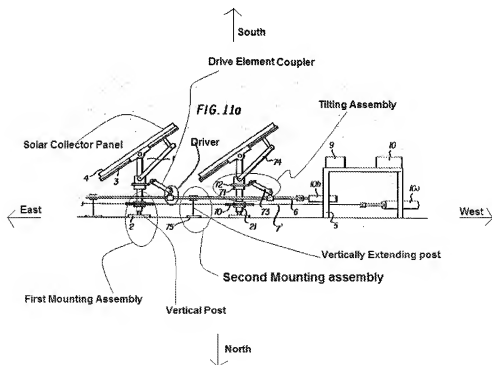
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-7, 12 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Aharon (US 4345582).

Regarding claims 1 and 33, Aharon discloses a modular shade system (fig. 11) with solar tracking panels (solar collector 4) comprising:

- a support surface (surface on which stands 2 and 75, and control stand 5 are mounted; see fig. 11);
- a series of generally North-South oriented, spaced apart torque tubes (rotatable rod 21; see fig. 3a-c and fig. 11), each torque tube (21) having an axis (vertical axis as shown in fig. fig. 11);
- panels (4) mounted to at least some of the torque tubes (21) to create spaced- apart rows of panels (see fig. 11, which shows spaced apart rows of panels comprising solar collector 4) along said torque tubes (21), at least some of the panels being solar collector panels (in the instant case

- all of the panels are solar collector panels; see abstract; col. 1, lines 59-64);
- a stationary shade structure (east-west extending, i.e., horizontally extending structure which is right below rod 6 and supported by the bearings 75; see fig. 11; col. 6, lines 41--42) positioned at a fixed location between selected ones of the torque tubes (first and second torque tubes 21; see fig. 11) and above the support surface (surface on which stands 2 and 75, and control stand 5 are mounted; see fig. 11) so to provide an enhanced shaded region thereunder;
 - a support structure (surface on which stands 2 and 75, and control stand 5 are mounted; see fig. 11) comprising:



-----Illustrative fig. 1

- a first mounting assembly (stand 2; fig. 11) for mounting each torque tube (21) above the support surface (surface on which stands 2 and 75, and control stand 5 are mounted; see fig. 11) for rotation about the axis of each said torque tube (vertical rotation); and
- a second mounting (bearing 75) for supporting the shade structure (east-west extending, i.e., horizontally extending structure which is right below rod 6 and supported by bearings 75; see fig. 11; col. 6, lines 41--42) at the fixed location (see fig. 11); and
- a tilting assembly (assembly comprised of rod 73, movable center 71 and slipping ring 72 and rod 74; see fig. 11) as part of the first mounting assembly (stand 2; fig. 11) selectively rotating each torque tube (21) about its axis (vertical rotation).

Regarding claim 2, Aharon further discloses the system according to claim 1, wherein the first mounting assembly (stand 2; fig. 11) comprises:

- pivot connectors (the post 20 as shown in fig. 3a-c extends up to the pivot connector as shown in fig. 1);
- Southside supports (Southside portion of post 20; see fig. 1, 3a-c and 11) pivotally connected to the torque tubes (21) by the pivot connectors (as shown in fig. 1); and

- Northside supports (Northside portion of post 20; see fig. 1, 3a-c and 11) pivotally connected to the torque tubes (21) by the pivot connectors (as shown in fig. 1).

Regarding claim 3, Aharon further discloses the system according to claim 1, wherein the Southside and Northside supports (Southside and Northside portions of post 20; see fig. 1, 3a-c and 11) comprise vertical posts (vertical post 20) (see fig. 11 which shows post extending from stand 2; see also fig. 3A which shows post 20).

Regarding claim 4, Aharon further discloses the system according to claim 1, wherein the second mounting assembly (bearing 75; fig. 11) of Aharon comprises vertically extending posts (see fig. 11 which shows vertically extending post from bearing 75) supporting East-West extending shade support bars (rod 6).

Regarding claim 5, Aharon further discloses the system according to claim 1, wherein the tilting assembly of Aharon comprises a drive element (slipping ring 72; see fig. 11) associated with each torque tube (21), a drive element coupler (rod 73; see fig. 11) operably coupling each drive element (72), and a driver (see above illustrative fig. 1) drivingly coupled to at least one drive element (72) to simultaneously rotate the torque tubes (21) about their associated axes (vertical axis) and simultaneously tilt the panels (4) mounted to the torque tubes (21) (as illustrated is fig. 11).

Regarding claims 6 and 7, Aharon further discloses the system according to claim 1 wherein the solar collector panels (4) comprise a light concentrator type solar collector or photovoltaic panel (see fig. 5; col. 3, lines 21-22; col. 1, lines 59-64; col. 2, lines 45-49; col. 4, lines 40-44).

Regarding claim 12, Aharon discloses the system according to claim 1, wherein the panels (4) comprises PV modules (see col. 1, lines 59-64).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 8-11 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon as applied to claims 1 and 33 above, and further in view of Berman et al. (US 4663495, as cited in previous office action).

As to claims 8-11, Applicant is directed above for complete discussion of Aharon with regards to claim 1, which is incorporated herein. Aharon further discloses that the panels comprise PV panels (see col. 1, lines 59-64), but fails to include that the panels comprising light-transmissive modular panels.

Berman et al. disclose a light-transmissive solar panel in Figure 1 (transparent photovoltaic panel, 10) which may be used on a roof-top (see Figure 7) to provide transmitted light that is not used for photovoltaic conversion for other purposes such as illuminating the interior of a dwelling (abstract, last sentence). Further, the PV panels of Berman et al. (transparent photovoltaic panel, 10) are light-transmissive PV panels.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the light-transmissive solar panel of Berman et al. to the modular shade system of Aharon in order to provide light for non-photovoltaic purposes such as illuminating the interior of a dwelling.

As to claim 35, Applicant is directed above for complete discussion of Aharon with regards to claim 33, which is incorporated herein. Aharon fails to disclose whether the support surface comprises a roof.

Berman as discussed above discloses a light-transmissive solar panel in Figure 1 (transparent photovoltaic panel, 10) which may be used on a roof-top (see Figure 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the system of Aharon on a roof as taught by Berman, because such use is conventionally known in the art as shown by Berman.

14. Claims 13, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon as applied to claim 12 above, and further in view of Catella et al. (US 4611090, as cited in previous office action).

Regarding claims 13, 14 and 17, Applicant is directed above for complete discussion of Aharon with regards to claim 12, which is incorporated herein. Aharon fails to teach protective panels mounted to opposite and covering substantially the entire the shading system subassembly opposite the lower surfaces of the PV modules protective panels comprising of a sheet of material. Aharon also fails to disclose that the semi-rigid support member and the protective panel that forms a part of it may be composed of steel, aluminum, cement board, perforated cement board, and phosphorescent material, or plastic; and are perforated in the sense that they contain a total of nine holes.

Catella discloses an assembly (semi-rigid support member, 10) for a structural support for a photovoltaic (PV) module in Figure 1. Catella et al. further explain that the semi-rigid support member (10) and the protective panel that forms a part of it may be composed of steel, aluminum, or plastic/ polycarbonate(column 4, lines 18-28) and are perforated in the sense that they contain a total of nine holes (see Figure 1). The construction of the assembly contains a protective panel mounted to the photovoltaic

module subassembly in the form of rib stiffeners (20) and a rectangular structure (23) opposite the lower surfaces to the PV modules (as shown with a mounted photovoltaic module, 22, in Figure 4) and the PV modules are encased in a rigid metal framework such as a metal casing (which each panel is separated by flanges 34) and a rigid transparent cover material/a sheet of material is the rigid transparent cover (col. 1 ; lines; 31-24). Catella et al. explain that the purpose of the protective panel is both to support the photovoltaic module (column 6, lines 65 - 8) and to "secure electrical wiring connections between the photovoltaic module and adjacent photovoltaic modules or a current collecting means" (column 7, lines 30-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the protective panel of Catella et al. to the modular shade system of Aharon in order to both support the photovoltaic module and secure electrical wiring connections between the photovoltaic module and adjacent photovoltaic modules or a current collecting means.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon and Catella as applied to claim 13 above, and further in view of Berman.

Applicant is directed above for complete discussion of Aharon in view of Catella with respect to claim 13, which is incorporated herein. Both of the references fail to provide is that the PV modules are constructed to permit some light to pass therethrough.

Berman et al. disclose a light-transmissive solar panel in Figure 1 (transparent photovoltaic panel, 10) which may be used on a roof-top (see Figure 7) to provide transmitted light that is not used for photovoltaic conversion for other purposes such as illuminating the interior of a dwelling (abstract, last sentence).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the light-transmissive solar panel of Berman et al. to the combination of Aharon and Catella et al. as applied to claim 13 above in order to provide light for non-photovoltaic purposes such as illuminating the interior of a dwelling.

16. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon in view of Catella as applied to claim 13 above, and further in view of Yamawaki et al. (US 6489552, as cited in previous office action).

Applicant is directed above for complete discussion of Aharon in view of Catella with respect to claim 13, which is incorporated herein. Both of the references fail to teach that the protective panels have a lower surface protective panel surface at least substantially the entire lower protective panel surface being convex.

Yamawaki et al. disclose a solar cell module (photovoltaic cell module tile body and photovoltaic module, 1 and 6, respectively, in Figure 1A) for covering a roof board. The photovoltaic module tile body (1) acts as a protective panel for the photovoltaic module (6). As Yamawaki et al. teach in column 5, lines 1-3, said photovoltaic tile body has a recessed convex portion/the entire lower protective panel surface being convex

(rectangular terminal-box storing recess, 3) which provides a space for the terminal box associated with the photovoltaic module or solar cell (6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the recessed convex portion of the protective panel of Yamawaki et al. to the modular shade system of the modified Aharon in order to provide a space for the terminal box associated with the solar cell.

17. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon as applied to claim 1 above, and further in view of Blieden et al. (US 4153813, as cited in previous office action).

Applicant is directed above for complete discussion of Aharon with respect to claim 1, which is incorporated herein. Aharon fails to teach that the supplemental panels comprise phosphorescent panels to provide passive nighttime illumination or that the supplemental panels comprise illuminated panels.

Blieden et al. disclose a luminescent member (16) which consists of a luminescent agent capable of phosphorescence (column 1, line 33-34) that is optically coupled to a photovoltaic cell (18) in Figure 3. Blieden et al. explain that the purpose of said luminescent member is to aid in the collection of low angle incident light (column 1, lines 57-61).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the luminescent member of Blieden et al. to the modular shade system of Aharon in order to aid in the collection of low angle incident light. Doing so

would automatically provide passive nighttime illumination beneath the support structure of Aharon. Finally, panels in said combination of the devices of Aharon and Blieden et al. are illuminated by virtue of their inclusion of the luminescent member.

18. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon as applied to claim 33 above, and further in view of Shingleton (US 6058930, as cited in previous office action)

Applicant is directed above for complete discussion of Aharon with respect to claim 33, which is incorporated herein. One reading Aharon as a whole would have readily appreciated that the modular shade system can be used on any support surface. However, Aharon fails to teach that the support surface comprises the ground or a roof.

Shingleton discloses the use of a solar collector system (see fig. 1, 2 and 3) in which the support surface comprises the ground (see col. 5, lines 59-61; col. 8, lines 41-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the system of Aharon on the ground or on a roof as taught by Shingleton, because such use is conventionally known in the art as shown by Shingleton.

19. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharon as applied to claim 33 above, and further in view of Morton (US 6341451).

With respect to claim 36, Aharon discloses all the features of claim 33 above, but fails to provide that the support surface comprises a vehicular parking area having parking stalls at the enhanced shaded region and the traffic regions adjacent to the parking stalls.

Morton teaches a portable garage apparatus (title) that has a roof (top wall structure, 12) that supports solar cells (see Figure 1 and solar energy panels 21, 22). As Morton explains in the abstract, this structure is deal for "providing shelter to a vehicle" when the owner of said vehicle does not have a garage. As can be seen in Figure 1, this potable garage has a parking stall (portion of the floor, 13, enclosed by the walls of the structure). Further, Morton discloses the use of a ramp (26) leading to the opening of the garage "being adapted to allow a vehicle to enter the building structure" (column 3, lines 64-66). This implies that the region adjacent to the ramp (26) is a traffic region which is also adjacent to the parking stall region defined above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the portable garage apparatus of Morton in conjunction with the roof-mounted modular shade system of Aharon in order to provide shelter to a vehicle when the owner of said vehicle does not have a garage.

With respect to claims 37, Aharon as modified by Morton further teaches that the system according to claim 36 further comprises a plurality of rows of panels (see fig. 11). In fig. 11, Aharon shows that the first and second rows of panels and then there is a gap between the second row of panels and last row of panels. Therefore, it is

Examiner's position that Aharon discloses first, second, third, fourth and fifth of said rows of panels. If not, then one of ordinary skill in the art at the time of the invention would have readily appreciated that plurality of rows of panels can be used in the system of Aharon to enhance the solar light collection. Also, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Thus, reconstruction is desirable to add features in the system of Aharon to further increase the solar collection of light. Aharon further shows that first and second of said stationary shade structures located between the first and second rows of panels and between the fourth and fifth rows of panels, respectively (in the instant case Aharon shows a stationary shade structure between each rows of panels; see fig. 1).

With respect to claim 38, Aharon discloses rows of panels have row lengths and said stationary shade structures have structure lengths (Figure 9A- C), but fails to disclose the row lengths being about equal to the structure lengths, said row lengths and structural lengths extending parallel to one another and parallel to the support surface. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device (see MPEP §2144.04).

Response to Arguments

20. Applicant's arguments with respect to claims 1-18 and 33-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections under 35 U.S.C. § 102(b)/103(a)

Claims 1-18 and 33-38

Applicant argues that "nothing in Shingleton suggests that any of the solar collectors should act as a stationary shade structure positioned at a fixed location as is presently claimed. To the contrary, Shingleton teaches away from making any of the solar collectors be stationary structures at a fixed location because doing so would lessen the amount of sun exposure and thus reduce the amount of energy from the solar collector" (see Remarks, page 8).

The argument is persuasive, but moot in view of new ground(s) of rejection (see new ground(s) of rejections as provided above).

Correspondence/Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GOLAM MOWLA whose telephone number is (571) 270-5268. The examiner can normally be reached on M-F, 0900-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ALEXA NECKEL can be reached on (571) 272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. M./
Examiner, Art Unit 1795

/Alexa D. Neckel/
Supervisory Patent Examiner, Art Unit 1795